



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**PROVISIONAL APPLICATION**

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**METHOD FOR INTEGRATING DRAWINGS AND  
SUPPORTING DOCUMENTS USING GRAPHIC  
OBJECT INTERFACE**

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**INVENTOR**  
**David E Weidner Jr.**



1 METHOD FOR INTERGRATING DRAWINGS AND SUPPORTING

2 DOCUMENTS USING GRAPHIC OBJECT INTERFACE

3 TECHNICAL FIELD:

4 The present invention relates to the field of drawings,  
5 schematics or plans and the integration of supporting documents  
6 within those drawings, inside of a computer program by use of links  
7 known as a Graphic Object Interface [GOI].

8 BRIEF DESCRIPTION OF THE DRAWINGS:

9 Preferred embodiments of the invention are described below with  
10 reference to the following accompanying drawings.

11 Fig. 1- Represents a generic flow chart depicting how job plan  
12 sheets, specifications. Spreadsheet data, and plans are inter-connected  
13 through linked GOI modules.

14 Fig. 2- Represents a generic flow chart of plans and specifications  
15 related GOI module and the related inter-linked data of the GOI module.

16 Fig. 3- Represents a generic view of a startup screen when  
17 program is loaded and the options available

18 Fig. 4- Represents a generic view of a typical GOI screen menu  
19 with data links and highlighted bookmarks to data.

20 Fig. 5- Represents a generic view of an equipment schedule  
21 representation for components to be installed as accessed from GOI link (A) in Fig. 4.

22 Fig. 6- Represents a view of location drawings (plans and section  
23 representations) for items to be installed as accessed from GOI link (B) shown in Fig. 4.  
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1           **Fig. 7-** Represents a view of specifications of that component as  
2 accessed from **GOI** link (C) shown in Fig. 4.

3           **Fig. 8-** is a view of a catalog representation of the actual items to be  
4 installed and the specific location as accessed from **GOI** link (D) shown in Fig. 4.

5           **Fig. 9-** is a view of a Maintenance & Operation Manual. Listing all of the  
6 parts and the basic trouble-shooting guide of the item as accessed from **GOI** link (E)  
7 shown in Fig. 4.

#### 8           **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

9           Referring in greater detail to the drawings, a presently preferred form of the  
10 apparatus utilizes the integration of computerized Graphic Objects as linked through a  
11 Graphic Object Interface (**GOI**) with associated database programs in the total  
12 management of any representation of the graphic objects. This includes but is not limited  
13 to finished construction project management for all commercial applications. i.e.  
14 construction trades, automotive assembly, and equipment manufacturing etc.

15           Graphic Objects are comprised of a graphic representation of the object to be  
16 constructed, or a part of the object to be constructed which may be in a computerized  
17 format or not. If the graphic used is non-computerized, then the graphic is converted  
18 through scanning, digital photography, or movies into one of any commonly used  
19 consumer computer graphic formats. Such formats include but are not limited to JPEG,  
20 MPEG, DVD, GIF, BMP, PCX, TIFF, TIFF-M and PNG or other computer operating  
21 system compatible graphics formats.

22           Database programs utilized with this apparatus integrate single or multiple  
23 commonly utilized consumer or vendor required programs that encompass all data  
24 required for the installation, maintenance, operation, and repair of a specific Graphic

1 Object representation. Single or multiple databases are organized into modules  
2 containing a single Graphic Object specific to the overall project being managed. The  
3 **GOI** may contain more than one module, which constitutes a single graphic object within  
4 the graphic interface. The database may be specifically linked through the **GOI** to one or  
5 more modules within the project or the entire project. The effect of the connection of the  
6 database(s) to a graphic object representation is to create a spider web of interrelated  
7 links (**Fig. 1, Fig. 2**) within a single project to allow the project supervisor or owner to  
8 effectively manage all aspects of the project from a desktop or laptop computer.

9 Common database programs utilized by consumers or vendors include but are not limited  
10 to Adobe Acrobat, Excel Spreadsheet, or any other portable document formats.

11 It is a preferred embodiment of this apparatus that internet web links, diagnostic and  
12 repair programs, database maintenance scheduling program, and/or adjusting  
13 maintenance programs may also be linked via the **GOI** in the same manner as the  
14 database(s) are linked above to a specific graphic object representation by utilizing any  
15 computerized network configuration.

16 For illustrative purposes Adobe Acrobat, Microsoft Word and Excel, database  
17 management programs are used with TIF graphic object representations that are  
18 converted to PDF files. The start of the management program generates a screen with  
19 one or more **GOI**'s. (**Fig. 3**) Upon accessing one section through the **GOI**, the user  
20 selects desired bookmark on left hand side. (**Fig. 4**) The selection of bookmark directs  
21 user to the desired module containing the required graphic object representation menu.  
22 (**Fig. 5 –Fig. 9**) The graphic object representation for the attached application is the Air  
23 handler. By Clicking return to AH-1 Menu, a menu appears. This menu displays the  
24

1 associated **GOI** links positioned on the menu relevant to graphic object that it represents.

2 Here is the explanation of those **GOI** Links (Fig. 4).

3 Note (A) Link to "Schedule" of events for installation of air handler unit strictly as  
4 a graphic object.

5 Note (B) Link to "Plans" related to the location and placement of air handler unit in  
6 the building (Right hand side of Figure 6) with associated links to database  
7 information about the plan.

8 Note (C) Link to "Specifications" data for the air handler unit with **GOI** Link back to  
9 the common Menu (Fig. 4).

10 Note (D) Link to "Submittal" of catalogue representation & information on air  
11 handler unit with **GOI** Link to Fig.4.

12 Note (E) Link to "Operation & Maintenance Manual" data for air handle catalogue  
13 representation & information on air handler unit with **GOI** Link to Fig.4.

14 Note (F) Link to "Details" containing other related data specific to air handler unit.  
15 installation

16 Note (G) Link to "Section" information on the individual components of the air  
17 handler unit, section as drawn in a section of the building.

18 Note (H) Link to Vendor Supplied Diagnostic Program or URL Link for this specific  
19 equipment to check setup and functioning of air handler unit.

20 On the left hand side of the menu is a bookmarks section and links to other menus &  
21 and their associated links. Upon selecting a **GOI**, another representation of the graphic  
22 object or associated database/ project management information is displayed. (Fig. 4) The  
23 exponential ability of this program to manage multi-levels of **GOI**'s is only limited by  
24 the capacity of the data storage device used.